

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 17, 2014

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.T. Davis, R.K. Verhaagen, and J.W. Plaué
SUBJECT: Los Alamos Report for Week Ending January 17, 2014

Criticality Safety: Dr. Jerry McKamy completed his first two-week onsite visit to support the field office and LANL Director on criticality safety issues. His detail runs through June 2014.

Last month, LANL issued an update to their staffing plan for criticality safety. For fiscal year 2014, the plan shows an analyzed need of 20.75 full time equivalent personnel with 13.25 currently acquired. As of this week, the qualification status includes one full-time analyst qualified for all facilities, two analysts qualified for individual portions of the Plutonium Facility, and one analyst qualified for the Chemistry and Metallurgy Research Building. In addition, there are six new hires currently qualified to perform calculations along with seven part-time and sub-contractor personnel with various qualifications to supplement these analysts.

Training: On Tuesday, the Site Representatives observed a demonstration of virtual facility familiarization and training software in development by LANL for Los Alamos County Fire Department personnel. LANL is using modern commercial software used by the video game industry to create realistic, high fidelity models of high-hazard facilities. The training contains pre-defined tours, as well as interactive, multi-person capability that includes simulated glovebox firefighting and contamination control. LANL representatives believe this capability is the first in the DOE complex and expect to release the software for the Plutonium Facility at the end of February 2014. The Site Representatives note the potential to utilize these software models for a variety of other training applications.

Plutonium Facility: LANL convened its Joint Evaluation Team this week to review certain paused activities to determine their potential need for readiness assessments prior to restart. Three hazard category 2 activities were evaluated and assessed to require federal readiness assessments if they are not resumed within one year of their last performance. These activities include: pyrochemistry processing, last performed in May 2013; foundry operations, last performed in June 2013; and aqueous processing, last performed in January 2014. Plutonium Facility personnel are evaluating the appropriate scope for these activities.

Radiological Laboratory, Utility, and Office Building (RLUOB): This week, RLUOB management received approval to begin cold (non-radiological) chemical operations in the laboratory areas. Pre-start findings applicable to cold chemical operations that were identified in the Management Self-Assessment completed last year have been closed (see 5/31/13 weekly). RLUOB personnel plan to start these operations next week and continue worker training, procedure improvements, and equipment qualification. Currently, radiological operations are scheduled to commence this summer. During RLUOB construction, only a limited number of laboratory rooms were outfitted with analytical chemistry equipment. LANL continues to pursue plans for outfitting additional laboratory space and increasing the facility material limit to 38 grams of plutonium-239 equivalent consistent with the NNSA supplemental guidance to DOE Standard 1027.